

59639-115

( 12/12/2012 (

1/43



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D C 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

DEC 12 2012

Dr Robert Hamilton  
Senior Regulatory Scientist  
Registration and Regulatory Affairs  
Valent U S A Corporation  
1101 14<sup>th</sup> Street NW Suite 1050  
Washington DC 20005

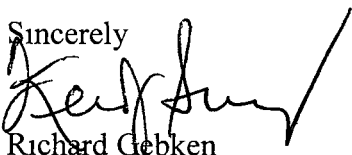
Subject Label Notification per PR Notice 98 10  
Esteem 35WP  
EPA Reg No 59639 115

Dear Dr Hamilton

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98 10 dated September 19 2012 for the product Esteem 35WP EPA Reg No 59639 115 The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98 10 and finds that the action(s) requested fall within the scope of PRN 98 10 The label submitted with the application has (have) been stamped Notification and will be placed in our records

If you have any questions please call Kevin Sweeney at (703) 305 5063

Sincerely

  
Richard Gebken  
Product Manager 10  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide Section I

1 Company/Product Number 59639 115	2 EPA Product Manager Richard Gebken	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) Esteem 35 WP (Insect Growth Regulator)	PM# 10	
5 Name and Address of Applicant (Include ZIP Code) Valent USA Corp 1600 Riviera Ave Suite 200 Walnut Creek CA 94596 <input type="checkbox"/> Check if this is a new address	6 Expedited Review In accordance with FIFRA Section 3(c)(3) (b)(i) my product is similar or identical in composition and labeling to EPA Reg No _____ Product Name _____	

## Section - II

## NOTIFICATION

<input type="checkbox"/> Amendment Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated <b>DEC 12 2012</b>
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> Me Too Application
<input checked="" type="checkbox"/> Notification Explain below	<input type="checkbox"/> Other Explain below

Explanation Use additional page(s) if necessary (For section I and Section II)

Notification to add back the seasonal maximum rate of 0.109 lbs active per acre per season that was inadvertently omitted from the last stamped approved label

## Section - III

1 Material This Product Will Be Packaged In				2 Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If Yes Unit Packaging wgt	No per container	If Yes Package wgt	No per container
3 Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4 Size(s) Retail Container		5 Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6 Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

## Section - IV

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)			
Name Robert L. Hamilton		Title Sr Regulatory Scientist	
		Telephone No. (Include Area Code) (202) 872 4682	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6 Date Application Received (Stamped)
2 Signature 		3 Title Senior Regulatory Scientist	
4 Typed Name Robert L. Hamilton		5 Date Sept 19, 2012	



GROUP

7C

INSECTICIDE

[ABN SEIZE™ 35 WP (INSECT GROWTH REGULATOR)]

**NOTIFICATION****DEC 12 2012**

# ESTEEM<sup>®</sup> 35 WP

## (INSECT GROWTH REGULATOR)

Active Ingredient  
 Pyriproxyfen  
 Other Ingredients  
 Total

By Wt  
 35.0%  
65.0%  
 100.0%

2 [1 methyl 2 (4 phenoxyphenoxy) ethoxy]pyridine

Esteem<sup>®</sup> 35 WP Insect Growth Regulator is a wettable powder formula containing 35% active ingredient

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

**NET CONTENTS 5 OUNCES**

[ABN NET CONTENTS 4 OUNCES]

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

### CAUTION

Causes moderate eye irritation Harmful if inhaled swallowed or absorbed through skin Avoid contact with skin eyes or clothing Avoid breathing vapor or spray mist Wash thoroughly with soap and water after handling

#### FIRST AID

- |                               |  |
|-------------------------------|--|
| <b>If in eyes</b>             | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 20 minutes</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>  |
| <b>If inhaled</b>             | <ul style="list-style-type: none"> <li>• Move person to fresh air</li> <li>• If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth to mouth if possible</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>  |
| <b>If swallowed</b>           | <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice</li> <li>• Have person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor</li> <li>• Do not give anything by mouth to an unconscious person</li> </ul> |
| <b>If on skin or clothing</b> | <ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 20 minutes</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>   |

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment You may also contact **1 800 892 0099** for emergency medical treatment information

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear** long sleeved shirt long pants and socks plus shoes.

Follow manufacturer s instructions for cleaning/maintaining PPE If no such instructions for washables exist use detergent and hot water Keep and wash PPE separately from other laundry

#### USER SAFETY RECOMMENDATIONS

Users should

- Wash hands before eating drinking chewing gum using tobacco or using the toilet
- Remove clothing immediately if pesticide gets inside Then wash thoroughly and put on clean clothing
- Remove PPE immediately after handling this product Wash the outside of gloves before removing As soon as possible wash thoroughly and change into clean clothing

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by disposing of equipment washwaters or rinsate. Avoid direct application and/or spray drift to bee hives.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling

**READ ENTIRE LABEL USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS**

Do not apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants soil or water is coveralls over long sleeved shirt and long pants waterproof gloves and socks plus shoes

**DISCLAIMER RISKS OF USING THIS PRODUCT  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT** Read the entire Label including this Disclaimer Risks of Using this Product Limited Warranty and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT rather return the unopened product within 15 days of purchase for a refund of the purchase price

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as Buyer) of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include but are not limited to injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including but not limited to loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label under average use conditions when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE VALENT MAKES NO OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

To the fullest extent allowed by law Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes but is not limited to loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW THE EXCLUSIVE REMEDY OF THE BUYER AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR AT THE ELECTION OF VALENT OR SELLER THE REPLACEMENT OF THE PRODUCT.

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim but in no event later than twenty one days from date of planting or twenty one days from the date of application whichever is latter so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims in such period it shall be barred from obtaining any remedy.

**NO AMENDMENTS**

Valent and Seller offer this product and Buyer accepts it subject to the foregoing Disclaimer Risks of Using This Product Limited Warranty and Limitation of Liability which may not be modified by any oral or written agreement.

**TANK MIXES**

**NOTICE** Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

[Optional Warranty/Disclaimer statement to be used when the product is sub registered by Makhteshim Agan of North America Inc ]

**LIMITATION OF WARRANTY AND LIABILITY**

Read the entire directions for use conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS**, **DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY**.

**CONDITIONS** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES** To the extent consistent with applicable law, Makhteshim Agan of North America Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America Inc.'s election, the replacement of product.

## WATER SOLUBLE PACKAGING

### MULTIPLE PACKAGING

This bag contains multiple water soluble packets of *Esteem* 35 WP Insect Growth Regulator. Do not handle the packets with wet gloves or allow the packets to become wet prior to addition to spray tank. Do not break open packets. Refer to the Tables of Equivalents to calculate the number of packets to use. If all packets are not used, close and reseal outer container to protect remaining packet(s).

### SINGLE PACKAGING

This bag contains one water soluble packet of *Esteem* 35 WP Insect Growth Regulator. Do not handle the packet with wet gloves or allow the packet to become wet prior to addition to spray tank. Do not break open packet. Refer to the Table of Equivalents to calculate the number of packets to use. Open outer bag by pulling perforated tearstrip and drop the unopened inner packet of *Esteem* 35 WP Insect Growth Regulator into spray tank.

**TABLE OF EQUIVALENTS**

<b>RATES OF ESTEEM 35 WP PER ACRE</b>	<b># OF WATER SOLUBLE PACKETS TO TREAT 5 ACRES [ABN 4 ACRES]</b>
3 oz	3
4 oz	4
5 oz	5

## GENERAL INFORMATION

Do not apply this product through any type of irrigation system.

*Esteem* 35 WP Insect Growth Regulator is intended for use in Insect Pest Management (IPM) or Insect Resistance Management (IRM) programs. *Esteem* 35 WP Insect Growth Regulator will not control insect adults, and it is recommended to be used in combination and/or rotation with other IPM or IRM materials. Contact your local state extension service for details.

*Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP Insect Growth Regulator is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.



## ARTICHOKE (GLOBE)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Artichoke	Artichoke Plum Moth Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A)
			<b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure, use the higher recommended rates  Only whole fields should be treated
<i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs			
Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application Do not apply this product with an adjuvant			

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## ASPARAGUS

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP Insect Growth Regulator is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Asparagus	Whitefly	2.5 to 3 oz	<p>Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A)</p> <p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b></p> <p>Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)</p> <p>Under severe pressure, use the higher recommended rates</p> <p>Only whole fields should be treated</p>
	<p>Do not apply within 7 days of harvest</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season</p> <p>Do not exceed 6 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment</p> <p>Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per season</p> <p>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application</p> <p>Do not apply this product with an adjuvant</p>		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## BANANA AND PLANTAIN

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*ESTEEM* 35 WP does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Banana Plantain	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	4 to 5 oz	<p>Apply with air or ground equipment in adequate water for uniform coverage</p> <p>By air            3 to 10 gals/A By ground      10 to 50 gals/A</p> <p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b></p> <p>Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)</p> <p>Only whole fields should be treated</p>
	<p>Do not apply within 14 days of harvest</p> <p>Do not make more than 3 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season</p> <p>Do not exceed 15 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season</p> <p>Regardless of formulation do not apply more than 0.327 lb pyriproxyfen per acre per season</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment</p> <p>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application</p>		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than three applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 4 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

12/13

## BERRIES (Crop Group 13)

**GENERAL** ESTEEM 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
<b>Bushberries Berries</b> Bingleberry Blackberry including Bingleberry Black Satin Berry Boysenberry Cherokee Blackberry Chesterberry Cheyenne Blackberry Coryberry Darrowberry Dewberry Dirksen thornless berry Himalayaberry Hullberry Lavacaberry Lowberry Lucretiaberry Mammoth Blackberry Marionberry Nectorberry Olallieberry Oregon Evergreen Berry Phenomenalberry Rangeberry Ravenberry Rossberry Shawnee Blackberry Youngberry Blueberry Currant Elderberry Gooseberry Huckleberry Juneberry Lingonberry Loganberry Raspberry (black and red) Salal	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	5 oz	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><b>Fruitworms</b> Apply when egg laying begins and again at petal fall. Additional applications of another insecticide at 10-14 day intervals may be needed under high population pressure or sustained moth flight.</p> <p><b>Lecanium Scale</b> Apply at either dormant, delayed dormant, or as an in-season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray, make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 7 days of harvest.</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season.</p> <p>Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment.</p> <p>Regardless of formulation, do not apply more than 0.218 lb pyriproxyfen per acre per season.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## BRASSICA LEAFY VEGETABLES (Crop Group 5)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Brassica Leafy Vegetables</b> Broccoli Broccoli Raab (rapini) Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gailan) Chinese Cabbage (bok choy and napa) Chinese Mustard (gai choy) Collards Kale Kohlrabi Mizuna Mustard Greens Mustard Spinach Rape Greens	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A)  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure use the higher recommended rates  Only whole fields should be treated
	Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## BULB VEGETABLES (Crop Group 3)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Bulb Vegetables</b> Garlic Garlic Great Headed Leek Onion Dry Bulb Onion Green Onion Welsh Shallot	Onion Thrips Western Flower Thrip	2.5 oz	<b>FOR SUPPRESSION OF THRIPS</b> Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A). Begin applications when thrips reach threshold levels per University/Extension. Thorough coverage is critical for adequate water volume to ensure thorough coverage.
	<i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs. <p>Do not apply within 3 days of harvest  Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season  Do not exceed 5 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season  Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment  Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season  Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

**CITRUS**  
**(Including Ugli Fruit and White Sapote)**  
**(Crop Group 10)**

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Citrus  Ugli Fruit  White Sapote	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	5 oz	<p>Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply anytime prior to fruit becoming infested when scale is in the crawler stage. Thorough coverage is essential for good control.</p> <p><i>Esteem</i> 35 WP Insect Growth Regulator may be applied with superior spray oils at 1/2 to 1%. Follow the manufacturer's directions and recommendations on timing and rates.</p> <p>NOTE: For scale, apply only one application during emergence of scale crawlers per calendar year.</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) programs and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 1 day of harvest.            Do not make more than 1 <i>Esteem</i> 35 WP Insect Growth Regulator application per growing season.            Do not exceed 5 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.            Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per season.</p>		

**CITRUS (Including Ugli Fruit and White Sapote) (Crop Group 10)-continued**

Citrus  Ugli Fruit  White Sapote	Citrus Black Fly Citrus Leafminer Citrus Whitefly	3 oz	Apply with ground application in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply when pests are just beginning to build and before infestation has occurred. Thorough coverage is essential for good control.
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) programs and Insect Resistance Management (IRM) programs</p> <p>Do not apply within 1 day of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season Do not apply earlier than 21 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.



## COTTON

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Cotton	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz  Do not apply less than 2.5 oz/A	Apply with air or ground equipment in adequate water for uniform coverage  By Air            3 to 10 gals/A By Ground      10 to 50 gals/A  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Make only one application per growing season  Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure use the higher recommended rates  Only whole fields should be treated
	Do not apply within 28 days of harvest Do not make more than 1 <i>Esteem</i> 35 WP Insect Growth Regulator application per growing season Do not exceed 3 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Regardless of formulation do not apply more than 0.067 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after last application		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to one application per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## CRANBERRY

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP Insect Growth Regulator is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Cranberry	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	5 oz	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or at least 20 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><b>Fruitworms</b> Apply when egg laying begins and again at petal fall. Additional applications of another insecticide at 10 to 14 day intervals may be needed under high population pressure or sustained moth flight.</p> <p><b>Lecanium Scale</b> Apply at either dormant, delayed dormant or an in season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in season use and rates of oil in your area.</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 7 days of harvest.</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season.</p> <p>Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment.</p> <p>Regardless of formulation do not apply more than 0.218 lb pyriproxyfen per acre per season.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## CUCURBITS (Crop Group 9)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*ESTEEM* 35 WP does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
<b>Cucurbits</b> Balsam Apple Balsam Pear Bitter Melon Cantaloupe Chayote Chinese Cucumber Chinese Waxgourd Citron Melon Cucumber Edible Gourd Gherkin <i>Momordica</i> spp Muskmelon Pumpkin Summer Squash Watermelon Winter Squash	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz  Do not apply less than 2.5 oz/A	Apply with air or ground equipment in adequate water for uniform coverage. By air           3 to 10 gals/A By Ground    10 to 50 gals/A  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure use the higher recommended rates  Only whole fields should be treated
	Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## FRUITING VEGETABLES (Crop Group 8)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Fruiting Vegetables</b> Eggplant Ground Cherry Okra Pepino Pepper Tomatillo Tomato	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz  Do not apply less than 2.5 oz/A of <i>Esteem</i> 35 WP Insect Growth Regulator when used as a stand alone application	Apply with air or ground equipment in adequate water for uniform coverage By Air       3 to 10 gals/A By Ground   10 to 50 gals/A  <b>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL</b>  Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures). Under severe pressure use the higher recommended rates.  Only whole fields should be treated.
	Banded Wing Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	1.8 to 2.5 oz	Apply as a tank mix with ground equipment for uniform coverage (25 to 150 gals/A by ground). Make application when eggs or insects first appear. If control is needed during this period use an alternate insecticide registered for the target pest.  <i>Esteem</i> 35 WP Insect Growth Regulator may also be mixed or alternated with commonly used insecticides to comply with local IPM programs.  Comply with all applicable directions, restrictions and precautions on the registered tank mix partner label.
	<i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.  Do not apply within 14 days of harvest. Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season. Do not exceed 5 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season. Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment. Regardless of formulation do not apply more than 0.109 lb pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.		

continued

## FRUITING VEGETABLES (Crop Group 8) continued

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Fruiting Vegetables</b> Tomato	Banded Wing Whitefly Beet Armyworm Fruitworm Greenhouse Whitefly (immatures & adults) Potato Aphid Silverleaf Whitefly Sweetpotato Whitefly Thrips Tomato Pinworm Yellowstriped Armyworm	1 8 to 2 5 oz + Danitol® 2 4 EC Spray 10 2/3 fl oz	<p>EARLY SEASON WHITEFLY CONTROL PROGRAM FOR REDUCTION OF GEMINIVIRUS</p> <p>Apply as a tank mix with ground equipment for uniform coverage (10 to 120 gals/A) Make application when scouting first indicates adult whiteflies are on young plants <b>NOTE</b> This may result in treatment immediately following transplanting</p> <p>MID TO LATE SEASON WHITEFLY CONTROL PROGRAM FOR PREVENTION OF IRREGULAR FRUIT RIPENING Apply as a tank mix with ground equipment for uniform coverage (20 to 120 gals/A by ground) Make application when scouting indicates whiteflies are present</p> <p><i>Esteem</i> 35 WP Insect Growth Regulator may also be mixed or alternated with commonly used insecticides to comply with local IPM programs</p> <p>Comply with all applicable directions restrictions and precautions on the registered label for <i>Danitol</i> 2 4 EC Spray</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs</p> <p>Do not apply within 14 days of harvest</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season</p> <p>Do not exceed 5 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment</p> <p>Regardless of formulation do not apply more than 0 109 lb pyriproxyfen per acre per season</p> <p>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains To optimize resistance management practices Valent U S A Corporation is restricting *Esteem* 35 WP Insect Growth Regulator no more than two applications per growing season *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides Valent also does not recommend using rates below 2 5 oz/A for whitefly control because reduced rates can lead to a greater potential for resistance development Follow local state and federal IPM and IRM recommendations Read and follow all product labels before applying any insecticide

## GRAPE

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an insect growth regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Grape	Glassy Winged Sharpshooter Grape Berry Moth Lecanium Scale	5 oz	<p>Apply with ground equipment as a full coverage spray (50 to 200 gals/A) Thorough coverage is critical for adequate control It is essential to use adequate water volume to ensure thorough coverage</p> <p><b>Lecanium Scale</b> Apply at either dormant delayed dormant or an in season cover spray At dormant delayed dormant you may use a spray oil at the manufacturer s recommended oil rate Do not use oil in an in season spray In a cover spray make applications when scale crawlers first emerge</p> <p>Follow local recommendations regarding in season use and rates of oil in your area</p>
<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs</p> <p>Do not apply within 21 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 10 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.218 lb active of pyriproxyfen per acre per season</p>			

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## LEAFY VEGETABLES (EXCEPT BRASSICA VEGETABLES) (Crop Group 4)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Leafy Vegetables (Except Brassica Vegetables)</b> Amaranth (Chinese Spinach) Arugula (Roquette) Cardoon Celery Celery Chinese Celtuce Chervil Chrysanthemum Edible Leaved Chrysanthemum Garland Corn Salad Cress Garden Cress Upland Dandelion Dock (Sorrel) Endive (Escarole) Fennel Florence Lettuce Head and Leaf Orach Parsley Purslane Garden Purslane Winter Radicchio (Red Chicory) Rhubarb Spinach New Zealand Spinach Vine Spinach Swiss Chard	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A)  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations  Under severe pressure use the higher recommended rates  Only whole fields should be treated
	Do not apply within 14 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application Do not apply this product with an adjuvant		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## LEAVES OF ROOT & TUBER VEGETABLES (Crop Group 2)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Leaves of Root &amp; Tuber Vegetables</b> Beet Garden Burdock Edible Carrot Cassava Bitter Cassava Sweet Celeriac Chervil Turnip Rooted Chicory Dasheen (Taro) Parsnip Radish Radish Oriental (Daikon) Rutabaga Salsify Black Sugar Beet Sweet Potato Tanier Turnip Yam True	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A)  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure, use the higher recommended rates  Only whole fields should be treated
	Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 5 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation, do not apply more than 0.109 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application Do not allow livestock to graze treated areas Do not apply this product with an adjuvant		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.



## LEGUME VEGETABLES (Succulent or Dried) (Crop Group 6)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an insect growth regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator exhibits translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Legume Vegetables (any cultivar or Bean (<i>Phaseolus</i>) Field Pea (<i>Pisum</i>) and Soybean)</b> Beans ( <i>Lupinus</i> ) Grain Lupin Sweet Lupin White Lupin White Sweet Lupin Beans ( <i>Phaseolus</i> ) Field Bean Kidney Bean Lima Bean Navy Bean Pinto Bean Runner Bean Snap Bean Tepary Bean Wax Bean Bean ( <i>Vigna</i> ) Adzuki Bean Asparagus Bean Blackeyed Pea Catjang Chinese Longbean Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea Urd Bean Yardlong Bean Broad Bean (fava) Chickpea (garbanzo) Guar Jackbean Lablab Bean Lentil Pea ( <i>Pisum</i> ) Dwarf Pea Edible podded Pea English Pea Field Pea Garden Pea Green Pea Snowpea Sugar Snap Pea Pigeon Pea Soybean Sword Bean	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3 oz	<b>EARLY SEASON WHITEFLY PROGRAM</b> Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
	Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation, do not apply more than 0.134 lb of pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application Do not allow livestock to graze treated areas Do not use on legume vegetable varieties grown for livestock feed		

continued

**LEGUME VEGETABLES (Succulent or Dried)(Crop Group 6)** continued

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## OLIVE

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Olive	Black Scale San Jose Scale	4 to 5 oz	<p>Apply with ground equipment in 100 to 400 gals/A Apply in sufficient water volume for tree size Thorough coverage is critical for adequate control It is essential to use adequate water volume to ensure thorough coverage</p> <p>Apply at either dormant delayed dormant or an in season cover spray At dormant delayed dormant use a spray oil at the manufacturer s recommended oil rate In a cover spray make applications when scale crawlers first emerge Follow local recommendations regarding in season use and rates of oil in your area</p> <p>Under heavy scale pressure use the higher rate of <i>Esteem</i> 35 WP Insect Growth Regulator</p>
<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs</p> <p>Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.218 lb pyriproxyfen per acre per season</p>			

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## PASTURE GRASS AND RANGELAND

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an insect growth regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pasture Grass and Rangeland	Cricket Grasshopper Locust	2.5 to 3 oz	<p>Apply with air or ground equipment in adequate water for uniform coverage</p> <p>By air            3 to 10 gals/A By Ground    10 to 50 gals/A</p> <p><b>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL</b></p> <p>Begin application when pests reach threshold levels per University/Extension recommendations</p> <p>Under severe pressure use the higher recommended rates</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season</p> <p>Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season</p> <p>Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment</p> <p>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## PAWPAW

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pawpaw	Scale Whitefly	4 to 5 oz	<p>Apply 100 to 400 gals/A with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.</p> <p><b>Scale</b> Apply at either dormant, delayed dormant or an in season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. Do not use oil in an in season spray.</p> <p>In a cover spray make applications when scale crawlers first emerge.</p> <p>Under heavy scale pressure use the higher rate of <i>Esteem</i> 35 WP Insect Growth Regulator.</p>
	<p>In season sprays of <i>Esteem</i> 35 WP Insect Growth Regulator may not protect fruit from blemishes by scale.</p> <p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 14 days of harvest. Do not make more than 3 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season. Do not exceed 15 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season. Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment. Regardless of formulation do not apply more than 0.327 lb pyriproxyfen per acre per season.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than three applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 4 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## PINEAPPLE

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pineapple	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	5 oz	<p>Apply with ground equipment in 20 to 50 gals/A Apply in sufficient water volume for plant size Thorough coverage is critical for control It is essential to use adequate water volume to ensure thorough coverage</p> <p>Apply anytime prior to fruit becoming infested when scale is in the crawler stage Application at the 2<sup>d</sup> or 3<sup>d</sup> generation of scale may result in excessive dead scale remaining on the fruit at harvest Thorough coverage is essential for good control</p> <p><i>Esteem</i> 35 WP Insect Growth Regulator may be applied with superior spray oils at 1/2 to 1% Follow the manufacturer s directions and recommendations on timing and rates</p>
<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs</p> <p>Do not apply within 1 day of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per calendar year Do not exceed 5 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 21 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per season</p>			

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per calendar year. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

31/43

## POME FRUIT (Crop Group 11)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Pome Fruit</b> Apple Crabapple Loquat Mayhaw Quince	Codling Moth  Suppression of Pandemis Leafroller Obliquebanded Leafroller	4 to 5 oz	<p>Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><b>1st Generation Codling Moth</b> Apply at Biofix plus 100 degree days (this is usually close to petal fall). Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of <i>Esteem</i> 35 WP Insect Growth Regulator. Follow local recommendations regarding in-season use and rates of oil in your area.</p> <p><b>Obliquebanded and Pandemis Leafroller</b> Apply to the overwintering larvae at pink to petal fall tree growth stage. <i>Esteem</i> 35 WP Insect Growth Regulator does not directly control the larvae but inhibits normal pupation and adult emergence.</p>
	Florida Red Scale Lecanium Scale San Jose Scale	4 to 5 oz	<p>Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply at delayed dormant through pink. For delayed dormant use a superior spray oil at the manufacturer's recommended rate of oil.</p> <p>Under heavy scale pressure, use the higher rate of <i>Esteem</i> 35 WP Insect Growth Regulator.</p> <p><b>Scale</b> For control in season, make application in cover sprays when scale crawlers first emerge. The use of oil at the crawler emergence stage has been shown to improve control. Follow local recommendations regarding in-season use and rates of oil in your area.</p>

continued

## POME FRUIT (Crop Group 11) continued

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit Apple Crabapple Loquat Mayhaw Quince	Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted Tentiform Leafminer Western Tentiform Leafminer	3 to 5 oz	<p>Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><b>Leafminers</b> Apply at peak moth flight for control of 1<sup>st</sup> or 2<sup>nd</sup> generation. This usually occurs at pre pink to pink apple stage for 1 generation and 2<sup>nd</sup> cover for 2<sup>nd</sup> generation.</p> <p><b>Rosy Apple Aphid</b> Apply at 1/2 green apple growth stage.</p> <p><b>Green Apple &amp; Spirea Aphid</b> Apply when aphids first appear but before aphids are colonized.</p> <p><b>TIMING IS CRITICAL FOR ACCEPTABLE APHID CONTROL</b></p>
Pear Oriental Pear	Pear Psylla	4 to 5 oz	<p>Apply by ground with airblast equipment in 75 to 400 gals/A with a superior spray oil at manufacturer's recommended rates for the stage of growth. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply a single application during the delayed dormant to pink stage of growth at 5 oz/A or make two applications from delayed dormant through petal fall stage of growth at 4 to 5 oz/A. Make application just before sustained egg lay is anticipated.</p> <p><b>DO NOT USE SKIP ROWS DURING APPLICATION</b></p> <p>For in season control of pear psylla use an insecticide recommended for this use.</p>
	Lecanium Scale San Jose Scale	4 to 5 oz	<p>Apply by ground with airblast equipment in 100 to 400 gals/A at delayed dormant with a superior spray oil at the manufacturer's recommended rates. Under heavy scale pressure use the higher rate.</p> <p>Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>For control of scale in season make application in cover sprays when scale crawlers first emerge. The use of oil at the crawler emergence stage has been shown to improve performance. Follow local recommendations regarding in season use and rates of oil in your area.</p>

continued



**POME FRUIT (Crop Group 11)** continued

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit Pear Oriental Pear	Codling Moth  Suppression of Obliquebanded Leafroller Pandemis Leafroller	4 to 5 oz	Apply by ground with airblast equipment in 100 to 400 gals/A  <b>1st Generation Codling Moth</b> Apply at Biofix plus 100 degree days Make a second application 14 to 21 days later or timed to coincide with peak moth flights For subsequent applications if needed apply other insecticides registered for Codling Moth control The addition of oil has been shown to increase Codling Moth activity of <i>Esteem</i> 35 WP Insect Growth Regulator Follow local recommendations regarding in season use and rates of oil in your area  For additional generations apply other insecticides registered for Codling Moth Control
<i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs Do not apply within 45 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.218 lb pyriproxyfen per acre per season			

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains To optimize resistance management practices Valent U S A Corporation is restricting *Esteem* 35 WP Insect Growth Regulator no more than two applications per growing season *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides Follow local state and federal IPM and IRM recommendations Read and follow all product labels before applying any insecticide

## POMEGRANATE

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*ESTEEM* 35 WP does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pomegranate	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	4 to 5 oz	Apply with air or ground equipment in adequate water for uniform coverage  By air            3 to 10 gals/A By ground      10 to 50 gals/A  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e g 3 to 5 adults per leaf and/or equivalent levels of immatures)  Only whole fields should be treated
			Do not apply within 14 days of harvest Do not make more than 3 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 15 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.327 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than three applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 4 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## ROOT AND TUBER VEGETABLES (Crop Group 1)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator does exhibit translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Root &amp; Tuber Vegetables</b> Arracacha Arrowroot Artichoke Chinese Artichoke Jerusalem Beet Garden Beet Sugar Burdock Edible Canna Edible Carrot Cassava (bitter and sweet) Celeriac Chaoyote (root) Chervil Turnip rooted Chicory Chufa Dasheen (taro) Ginger Ginseng Horseradish Leren Parsley Turnip rooted Parsnip Potato Radish Radish Oriental Rutabaga Salsify Salsify Black Salsify Spanish Skirret Sweet Potato Tanier Turmeric Turnip Yam Bean Yam True	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	2.5 oz	Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A)  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure use the higher recommended rates  Only whole fields should be treated
	Do not apply within 7 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 5 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Regardless of formulation do not apply more than 0.109 lb pyriproxyfen per acre per season Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application Do not allow livestock to graze treated areas		

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

**SMALL FRUIT VINE CLIMBING CROPS (EXCEPT GRAPE)**  
(Crop Group 13 07E)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
<b>Small Fruit Vine Climbing Crops</b> Berry Schisandra Gooseberry Grape Amur River Kiwifruit Fuzzy Kiwifruit Hardy Maypop and cultivars, varieties and/or hybrids of these	Scale	5 oz	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply at either dormant, delayed dormant or an in season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray, make applications when scale crawlers first emerge. Follow local recommendations regarding in season use and rates of oil in your area.</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 30 days of harvest.  Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season.  Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.  Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment.  Regardless of formulation, do not apply more than 0.218 lb pyriproxyfen per acre per season.  Do not apply this product with an adjuvant.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## STONE FRUIT (Crop Group 12)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Stone Fruit</b> Apricot Cherry Chickasaw Plum Damson Plum Fresh Prune Japanese Plum Nectarine Peach Plum Plumbcot Prune	Lecanium Scale San Jose Scale  Suppression of Peach Twig Borer Oriental Fruit Moth	4 to 5 oz	Apply in 100 to 400 gals/A with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.  <b>Scale</b> Apply at dormant, delayed dormant or as an in-season cover spray. At dormant, delayed dormant, use a spray oil at the manufacturer's recommended oil rate.  Under heavy scale pressure, use the higher rate of <i>Esteem</i> 35 WP Insect Growth Regulator.  <b>Peach Twig Borer</b> <i>Esteem</i> 35 WP Insect Growth Regulator has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays. Use a spray oil at the manufacturer's recommended rate for the stage of crop growth.
	In-season sprays of <i>Esteem</i> 35 WP Insect Growth Regulator may not protect fruit from blemishes by scale.  <i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.  Do not apply within 14 days of harvest. Do not make more than 3 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season. Do not exceed 15 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season. Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment. Regardless of formulation, do not apply more than 0.327 lb pyriproxyfen per acre per season.		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than three applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## STRAWBERRY

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an insect growth regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator exhibits translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Strawberry	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	3 oz	Apply with ground equipment as a full coverage spray (100 to 400 gals/A) Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage
			Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures)  Under severe pressure use the higher recommended rates  Only whole fields should be treated
Do not apply within 2 days of harvest Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Do not apply earlier than 30 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application Regardless of formulation do not apply more than 0.134 lb of pyriproxyfen per acre per season			

**MANAGING WHITEFLY RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 3 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## TREE NUTS (Crop Group 14)

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Tree Nuts Almond	Black Scale San Jose Scale  Suppression of Peach Twig Borer	4 to 5 oz	Apply with ground equipment in 100 to 400 gals/A. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.  Apply at either dormant, delayed dormant, or an in-season cover spray. At dormant, delayed dormant, use a spray oil at the manufacturer's recommended oil rate. In a cover spray, make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.  <i>Esteem</i> 35 WP Insect Growth Regulator has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.
	Almond Do not apply within 21 days of harvest Do not make more than 1 <i>Esteem</i> 35 WP Insect Growth Regulator application per growing season Do not exceed 5 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season Regardless of formulation, do not apply more than 0.109 lb pyriproxyfen per acre per season		

continued

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to one application per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

# **TREE NUTS (Crop Group 14) continued**

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<b>Tree Nuts</b> Beechnut Brazil Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Macadamia Pecan Pistachio Walnut	Codling Moth Dusky Veined Aphid Walnut Aphid	5 oz	Apply with ground equipment in 100 to 400 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  <b>1st Generation Codling Moth</b> Apply at Biofix plus 100 degree days. Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of <i>Esteem</i> 35 WP Insect Growth Regulator. Follow local recommendations regarding in season use and rates of oil in your area.
	Black Scale Brown Soft Scale Italian Scale Lecanium Scale San Jose Scale Walnut Scale  Suppression of Peach Twig Borer	4 to 5 oz	Apply with ground equipment in 100 to 400 gals/A at either dormant, delayed dormant or an in season cover spray. The addition of a superior spray oil at dormant or delayed dormant may improve scale control. However, do not use a spray oil in oil sensitive crops such as Walnut. Follow manufacturer's recommendations regarding use and rates of oil for your area.  In a cover spray, make applications when scale crawlers first emerge. Follow local recommendations regarding in season use and rates of oil in your area.  Under heavy scale pressure, use the higher rate.  Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 21 days of harvest.            Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season.            Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.            Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment.            Regardless of formulation, do not apply more than 0.218 lb pyriproxyfen per acre per season.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.



## TROPICAL & SUBTROPICAL FRUIT

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PEST	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
<b>Tropical &amp; Subtropical Fruit</b> Acerola Atemoya Avocado Biriba Black Sapote Canistel Cherimoya Custard Apple Feijoa Guava Ilama Jaboticaba Longan Lychee Mamey Sapote Mango Papaya Passionfruit Pulasan Rambutan Sapodilla Soursop Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu	Scale	5 oz	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply at either dormant, delayed dormant, or as an in-season cover spray. At dormant or delayed dormant, use a spray oil at the manufacturer's recommended oil rate. In a cover spray, make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.</p>
			<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 14 days of harvest.</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season.</p> <p>Do not exceed 10 oz of <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment.</p> <p>Regardless of formulation, do not apply more than 0.218 lb pyriproxyfen per acre per season.</p>

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## WATERCRESS

**GENERAL** *Esteem* 35 WP Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Esteem* 35 WP Insect Growth Regulator has no activity on adult insects but hatching of eggs laid by treated adults will be suppressed. Since *Esteem* 35 WP is an insect growth regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower than typical contact insecticides.

*Esteem* 35 WP Insect Growth Regulator exhibits translaminar movement which means that *Esteem* 35 WP Insect Growth Regulator applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Watercress	Sharpshooters Whitefly	2.5 to 3 oz	<p>Apply with ground equipment as a full coverage spray (10 to 50 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Begin applications when whiteflies reach threshold levels per University/Extension recommendations.</p> <p>Under severe pressure, use the higher recommended rates.</p> <p>Only whole fields should be treated.</p>
	<p><i>Esteem</i> 35 WP Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p>Do not apply within 7 days of harvest.</p> <p>Do not make more than 2 <i>Esteem</i> 35 WP Insect Growth Regulator applications per growing season.</p> <p>Do not exceed 6 oz <i>Esteem</i> 35 WP Insect Growth Regulator per acre per season.</p> <p>Do not apply earlier than 14 days after last <i>Esteem</i> 35 WP Insect Growth Regulator treatment.</p> <p>Regardless of formulation, do not apply more than 0.134 lb of pyriproxyfen per acre per season.</p> <p>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</p> <p>Do not apply this product with an adjuvant.</p>		

**MANAGING INSECT RESISTANCE** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting *Esteem* 35 WP Insect Growth Regulator to no more than two applications per growing season. *Esteem* 35 WP Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 oz per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **STORAGE AND DISPOSAL**

Do not contaminate water food or feed by storage disposal or cleaning of equipment

### **PESTICIDE STORAGE**

Store in a cool dry place

Keep pesticide in original container

Keep container closed when not in use

Do not put concentrate or dilute into food or drink containers

Not for use or storage in or around the home

For help with any spill leak fire or exposure involving this material call day or night 800 892 0099

### **PESTICIDE DISPOSAL**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility

### **CONTAINER DISPOSAL**

Nonrefillable outer bag Do not reuse or refill the outer bag Completely empty bag into application equipment Then dispose the empty bag in a sanitary landfill or by incineration or if allowed by State and local authorities by burning If burned stay out of smoke

Copyright© 2012 by Valent U S A Corporation

*Esteem* is a registered trademark of Valent U S A Corporation

*Danitol* is a registered trademark of Sumitomo Chemical Company Ltd

**Danitol is a restricted use product**

Manufactured for

**Valent U S A Corporation**

P O Box 8025

Walnut Creek CA 94596 8025

www.valent.com

Made in U S A

EPA Reg No 59639 115

EPA Est No

059639 00115 20120919 E35  
20120531